

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029402**Date Inspected:** 11-Apr-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** On Site**CWI Name:** N/A**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Electroslag Welds**Summary of Items Observed:**

The Caltrans OSM Quality Assurance (QA) Inspector Art Peterson was present during the times noted above to perform ultrasonic inspection verification on Electroslag welds inside of the Tower. The purpose of the ultrasonic inspection was for the detection of planar indications utilizing both the pulse echo (PE) technique and the pitch and catch (PC) technique for further discontinuity evaluation in the middle half of the material thickness on electroslag welds where previous discontinuities were detected by the single pulse echo search unit. The data collected from utilizing the pitch and catch technique is for information only and the ultrasonic test (UT) inspection was performed as a joint inspection with ABF/JV Quality Control (QC) Smith Emery NDT personnel. The summary of the joint ultrasonic inspection performed on this date was as follows:

Tower Electroslag Weld Identification: N-043

Electroslag Weld: Weld #P - Shear Plate – “A” side only of weld.

Type of Joint: T (80 - 100) mm thick transition weld.

From Y Location: (1330) mm.

Results: (1) planar Indication with planar height characteristics – “A” side PE Decibel rating (+15) / PC Decibel rating (+5).

Tower Electroslag Weld Identification: N-043

Electroslag Weld: Weld #P - Shear Plate – “A” side only of weld.

Type of Joint: T (80 - 100) mm thick transition weld.

From Y Location: (1560) mm.

Results: (1) planar Indication with no planar height characteristics – “A” side PE Decibel rating (+13) / PC

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## WELDING INSPECTION REPORT

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Decibel rating (+16).

Tower Electroslag Weld Identification: N-043

Electroslag Weld: Weld #P - Shear Plate – “A” side only of weld.

Type of Joint: T (80 - 100) mm thick transition weld.

From Y Location: (1945) mm.

Results: (1) planar Indication with no planar height characteristics – “A” side PE Decibel rating (+8) / PC Decibel rating (+9).

Tower Electroslag Weld Identification: N-043

Electroslag Weld: Weld #P - Shear Plate – “B” side only of weld.

Type of Joint: T (80 - 100) mm thick transition weld.

From Y Location: (890) mm.

Results: (1) planar Indication with no planar height characteristics – “B” side PE Decibel rating (+8) / PC Decibel rating (+13).

Tower Electroslag Weld Identification: N-043

Electroslag Weld: Weld #P - Shear Plate – “B” side only of weld.

Type of Joint: T (80 - 100) mm thick transition weld.

From Y Location: (980) mm.

Results: (1) planar Indication with no planar height characteristics – “B” side PE Decibel rating (+8) / PC Decibel rating (+16).

Tower Electroslag Weld Identification: N-043

Electroslag Weld: Weld #P - Shear Plate – “B” side only of weld.

Type of Joint: T (80 - 100) mm thick transition weld.

From Y Location: (1330) mm.

Results: (1) planar Indication with planar height characteristics – “B” side PE Decibel rating (+8) / PC Decibel rating (+6).

### Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel regarding the ultrasonic inspection utilizing the pulse echo and pitch and catch technique on Electroslag welds inside of the Tower on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas, 916-764-6027, who represents the Office of Structural Materials for your project.

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**Inspected By:** Peterson, Art

Quality Assurance Inspector

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**Reviewed By:** Mertz, Robert

QA Reviewer